

149 OPERATIONAL FACILITIES-OTHER THAN BUILDINGS

This category group contains facilities such as towers and structures which support tactical or organizational aircraft related operations and which do not fall readily into another category. It includes protective construction.

149 10 AIRCRAFT REVETMENT (EA)

Aircraft revetments are constructed only for emergencies or in combat zones for the protection of aircraft against fire, blast, or enemy action. For planning purposes, the unit of measure is Each; that is, the number of protected aircraft sites.

149 15 FIXED AIRCRAFT START SYSTEM (EA)

This is a fixed system consisting of aircraft service points providing electrical power and compressed air or other gas for starting aircraft on aircraft parking aprons. Each facility requires individual justification.

149 20 AIRCRAFT CATAPULT (EA)

This is a facility to be planned for air installations where training or research is performed on catapult takeoffs. Individual justification is required. See NAVFAC DM-24 for design data.

149 30 AIRCRAFT ARRESTING GEAR (EA)

Aircraft arresting gear is designed to bring an aircraft to a stop in case of an aborted takeoff or an emergency landing.

The Model E-28 rotary hydraulic arresting gear is the current standard high-performance arresting gear and will accommodate a maximum aircraft weight of 78,000 pounds and a maximum aircraft engaging speed of 160 knots. Aircraft engaging the Model E-28 arresting gear are stopped within a runout distance of approximately 1,000 feet. Engagement can be made from either runway direction and at points up to 40 feet on either side of the runway centerline. The high performance (Model E-28) type of arresting gear is planned for both primary and secondary (crosswind) runways. Normally, two sets of arresting gear are required for each operative runway; one at each end between 900 feet and 1,500 feet inboard from the runway threshold. Midpoint arresting gear may be included on the station BFR when justified by runway or operational conditions and when approved through appropriate channels.

Chain-type arresting gear may be planned for airfields where arrestments are minimal and would not justify the operating cost of high-performance arresting gear.

See NAVFAC DM-24 for design criteria.

149 45 MISSILE LAUNCH FACILITY (EA)

This category code is provided for inventory purposes only.

149 50 BLAST DEFLECTOR FENCE (EA)

Blast deflector fences are structures that direct the exhaust from jet engines upward. They are used in congested areas and parking and maintenance areas to protect personnel, equipment, structures, aircraft, and other vehicles from the blast effect of jet engine exhaust. Blast fences are also used to prevent erosion of paved and unpaved areas and to provide protection from flying debris. Their siting and length must be based on the study of individual station requirements. Blast deflector fences may be purchased or constructed in sections to permit moving them from one position to another as protection requirements change. Careful selection of location is necessary to prevent creating an obstacle to taxiing aircraft.

For design criteria, see NAVFAC DM-24.

149 85 EXPEDITIONARY AIR CONTROL SITE - MATCU, MACS AND MASS (EA)

These are Marine Corps facilities required to accommodate, in-garrison, the equipment used for expeditionary aircraft command and control. These facilities are assigned to specialized Marine Corps squadrons, and the expeditionary equipment used in conjunction with these facilities is normally squadron property. The Marine Air Control Squadron (MACS) and the Marine Air Support Squadron (MASS) are squadrons in the Marine Aircraft Wing and are directly responsible for air defense and air control. The Marine Air Traffic Control Unit (MATCU) is responsible for terminal air traffic control. For design criteria for MACS, MASS and MATCU facilities, see NAVFAC DM-24; for typical layouts, see NAVFAC P-272.

A Marine Air Control Squadron (MACS) exercises control over aircraft within a designated operational area while expeditionary and also in-garrison. In-garrison requirements for a MACS consist of special site preparation, access roads, pads, and utilities to accommodate expeditionary equipment. A minimum of one MACS facility is provided per Marine Corps air station or auxiliary air station. The pad requirement is approximately 3,446 square yards, depending upon siting and type of equipment. Electric power requirements are 150 kilowatts at 400 Hertz, approximately. The MACS site development does not eliminate the requirement for permanent air surveillance radar (Category Code 133 75) at the installation.

A Marine Air Support Squadron (MASS) provides control of aircraft conducting offensive operations in support of a Marine Division in an expeditionary configuration. In-garrison requirements for a MASS consist of special site preparation, access roads, pads, and utilities to accommodate expeditionary equipment. A minimum of one MASS facility is required per Marine Corps air station or auxiliary air station. The pad requirement is approximately 292 square yards, depending upon the siting of equipment assigned to the squadron. Electric power requirements are 125 kilowatts

at 60 Hertz, and 250 kilowatts at 400 Hertz, approximately. The MASS site development for training and exercise of equipment, does not eliminate the requirement for permanent air traffic control facilities at the installation.

The Marine Air Traffic control Unit (MATCU) performs a combined function similar to that accomplished in Category Code 134 40, Ground Control Approach System; Category Code 133 25, TACAN Building; and Category Code 133 75, Air Surveillance Radar Building. The equipment may be expeditionary, and the in-garrison facility requirements consist of pads and utilities only. The pad requirement is approximately 515 square yards. However, during long-term airfield support, a permanent MATCU operations building may be required (see Category Code 141 41). The electric power requirement is 125 KW at 400 Hertz. There is a minimum of one MATCU site development required at each Marine Corps air station or auxiliary air station. When in an expeditionary configuration, the MATCU facility is located at a runway, other than the primary instrument runway. The MATCU site development does not eliminate the requirement for conventional ASR, TACAN, or GCA on the instrument runways.